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| 09/587,668 | 06/05/2000 | Tao Chen | 000245 | 8446 |

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| EXAMINER | |
|---|---|
| HOLLIDAY, JAIME MICHELE | |
| ART UNIT | PAPER NUMBER |
| 2617 | |

| NOTIFICATION DATE | DELIVERY MODE |
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| 06/05/2008 | ELECTRONIC |

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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| Office Action Summary | Application No. | Applicant(s) | |
|---|---|---|---|
| | 09/587,668 | CHEN, TAO | |
| | Examiner | Art Unit | |
| | JAIME M. HOLLIDAY | 2617 | |

*-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --*

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1)☒ Responsive to communication(s) filed on *28 February 2008*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

4)☒ Claim(s) *1-40* is/are pending in the application.

4a) Of the above claim(s) *1-28* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *29-40* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

**Application Papers**

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

### *Response to Amendment*

### *Response to Arguments*

Applicant's arguments filed February 28, 2008 have been fully considered but they are not persuasive.

Applicant basically argues that the prior art of record, in particular Kanai and Moon, fail to specifically disclose the newly added limitation “detecting an unbalanced quality of power control signals simultaneously received at a plurality of base station transceivers.” Further, Applicant argues that Kanai teaches a quality monitored by a base station, and therefore, Kanai does not teach "plurality of base stations" or "detecting unbalanced quality."

Examiner respectfully disagrees, because the base stations **500** and **510** are both transmitting and receiving pilot signals (fig. 5). The claims currently claim base stations receiving signals from a mobile station simultaneously, and not that both base stations detect the signal quality at the same time.

Therefore, in view of the preceding arguments, Examiner maintains previous rejections.

### *Claim Rejections - 35 USC § 103*

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

**Claims 29-40** are rejected under 35 U.S.C. 103(a) as being unpatentable over Kanai (U.S. Patent Number 5,898,682) in view of Moon (U.S. Patent Number 6,567,391).

***Regarding claim 29***. Kanai discloses all the claimed invention as set fourth in the instant application, further Kanai discloses a radio channel control apparatus used in a CDMA cellular system and capable of changing cell size. Additionally, Kanai discloses detecting an unbalanced quality of power control signals simultaneously received at a plurality of base station transceivers from a wireless device ([prior to control of modification in cell size, the transmission power levels of the pilot channel signals of the base stations **500** and **510** are equal to each other and the reception levels of the pilot channels of the mobile stations] are which reads on column 2 lines 24-25, column 8 lines 53-65; fig. 3, fig. 5); increasing a target signal-to-noise ratio (SNR) for at least one of the plurality of base station transceivers when the quality of at least one of the power control signals for the at least one of the plurality of base station transceivers is below a predefined target signal quality ([if the traffic of the base station **500** approaches the allowable limit and deterioration of the communication quality of the base station is detected, the transmission power levels of the pilot signals of the base stations **500** and **510** are decreased and increased, respectively; for the mobile station in a standby state, the cell size of the base station is reduced while the cell size of the base station is expanded; as a consequence, in the base station, the reduction in cell size brings about an increase in margin for thermal noise] which reads on column 9 lines 20-26, 55-62).

However Kanai fails to increase the transmit power level of the pilot channel from the wireless device decrease a power gain of other channels.

In the same field of endeavor, Moon discloses a call control method in base station of CDMA mobile radio communication system. Moon further discloses increasing a pilot channel transmit power level of a pilot channel transmitted by the wireless device in response to the at least one of the plurality of base station transceivers ([mobile station increases transmission power]); and decreasing a power gain of other channels transmitted by the wireless device in relation to an increased transmit power level of the pilot channel of the wireless device ([total transmission power is not changed; with some traffic channels decreasing transmission power] which reads on fig. 2; column 3 lines 46-65).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to improve Kanai with decreasing a power gain of other channels while increasing the power of the reverse pilot signal as taught by Moon for the purpose of obtaining a uniform power level.

***Regarding claim 30***. Kanai discloses the power gain of other channels in relation to the pilot channel is decreased by an amount that is equal to an amount by which the pilot channel transmit power level is increased (which reads on column 2 lines 9-18).

***Regarding claim 31***. Kanai discloses the power gain of other channels in relation to the pilot channel is decreased by an amount that is more than an amount by

which the pilot channel transmit power level is increased (which reads on column 2 lines 9-18).

***Regarding claim 32***. Kanai discloses the wireless device is in soft handoff (which reads on column 1 lines 53-55).

***Regarding claim 33***. Kanai discloses an apparatus comprising means for detecting an unbalanced quality of power control signals simultaneously received at a plurality of base station transceivers from a wireless device ([prior to control of modification in cell size, the transmission power levels of the pilot channel signals of the base stations **500** and **510** are equal to each other and the reception levels of the pilot channels of the mobile stations] are which reads on column 2 lines 24-25, column 8 lines 53-65; fig. 3, fig. 5); increasing a target signal-to-noise ratio (SNR) for at least one of the plurality of base station transceivers when the quality of at least one of the power control signals for the at least one of the plurality of base station transceivers is below a predefined target signal quality ([if the traffic of the base station **500** approaches the allowable limit and deterioration of the communication quality of the base station is detected, the transmission power levels of the pilot signals of the base stations **500** and **510** are decreased and increased, respectively; for the mobile station in a standby state, the cell size of the base station is reduced while the cell size of the base station is expanded; as a consequence, in the base station, the reduction in cell size brings about an increase in margin for thermal noise] which reads on column 9 lines 20-26, 55-62).

However Kanai fails to increase the transmit power level of the pilot channel from the wireless device decrease a power gain of other channels.

In the same field of endeavor, Moon discloses a call control method in base station of CDMA mobile radio communication system. Moon further discloses increasing a pilot channel transmit power level of a pilot channel transmitted by the wireless device in response to the at least one of the plurality of base station transceivers ([mobile station increases transmission power]); and decreasing a power gain of other channels transmitted by the wireless device in relation to an increased transmit power level of the pilot channel of the wireless device ([total transmission power is not changed; with some traffic channels decreasing transmission power] which reads on fig. 2; column 3 lines 46-65).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to improve Kanai with decreasing a power gain of other channels while increasing the power of the reverse pilot signal as taught by Moon for the purpose of obtaining a uniform power level.

***Regarding claim 34***. Kanai discloses the power gain of other channels in relation to the pilot channel is decreased by an amount that is equal to an amount by which the pilot channel transmit power level is increased (which reads on column 2 lines 9-18).

***Regarding claim 35***. Kanai discloses the power gain of other channels in relation to the pilot channel is decreased by an amount that is more than an amount by which the pilot channel transmit power level is increased (which reads on column 2 lines 9-18).

***Regarding claim 36***. Kanai discloses the wireless device is in soft handoff (which reads on column 1 lines 53-55).

***Regarding claim 37***. Kanai discloses a computer readable medium embodying executable instructions for detecting an unbalanced quality of power control signals simultaneously received at a plurality of base station transceivers from a wireless device ([prior to control of modification in cell size, the transmission power levels of the pilot channel signals of the base stations **500** and **510** are equal to each other and the reception levels of the pilot channels of the mobile stations] are which reads on column 2 lines 24-25, column 8 lines 53-65; fig. 3, fig. 5); increasing a target signal-to-noise ratio (SNR) for at least one of the plurality of base station transceivers when the quality of at least one of the power control signals for the at least one of the plurality of base station transceivers is below a predefined target signal quality ([if the traffic of the base station **500** approaches the allowable limit and deterioration of the communication quality of the base station is detected, the transmission power levels of the pilot signals of the base stations **500** and **510** are decreased and increased, respectively; for the mobile station in a standby state, the cell size of the base station is reduced while the cell size of the base station is expanded; as a consequence, in the base station, the reduction in cell size brings about an increase in margin for thermal noise] which reads on column 9 lines 20-26, 55-62).

However Kanai fails to increase the transmit power level of the pilot channel from the wireless device decrease a power gain of other channels.

In the same field of endeavor, Moon discloses a call control method in base station of CDMA mobile radio communication system. Moon further discloses increasing a pilot channel transmit power level of a pilot channel transmitted by the wireless device in response to the at least one of the plurality of base station transceivers ([mobile station increases transmission power]); and decreasing a power gain of other channels transmitted by the wireless device in relation to an increased transmit power level of the pilot channel of the wireless device ([total transmission power is not changed; with some traffic channels decreasing transmission power] which reads on fig. 2; column 3 lines 46-65).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to improve Kanai with decreasing a power gain of other channels while increasing the power of the reverse pilot signal as taught by Moon for the purpose of obtaining a uniform power level.

***Regarding claim 38***. Kanai discloses the power gain of other channels in relation to the pilot channel is decreased by an amount that is equal to an amount by which the pilot channel transmit power level is increased (which reads on column 2 lines 9-18).

***Regarding claim 39***. Kanai discloses the power gain of other channels in relation to the pilot channel is decreased by an amount that is more than an amount by which the pilot channel transmit power level is increased (which reads on column 2 lines 9-18).

***Regarding claim 40***. Kanai discloses the wireless device is in soft handoff (which reads on column 1 lines 53-55).

## *Conclusion*

1. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JAIME M. HOLLIDAY whose telephone number is (571)272-8618. The examiner can normally be reached on Monday through Friday 7:30am to 4:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, V. Paul Harper can be reached on (571) 272-7605. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/VINCENT P. HARPER/
Supervisory Patent Examiner, Art Unit 2617

/Jaime M Holliday/
Examiner, Art Unit 2617